

Epo medicine

LANOLIN.



A COMPILATION

OF THE

WORKS ON LANOLIN

PUBLISHED 1885—1892.

IN THE

MEDICAL JOURNALS

OF

GERMANY AND OF OTHER COUNTRIES

COLLECTED BY

BENNO JAFFÉ & DARMSTAEDTER

LANOLIN WORKS

MARTINIKENFELDE NEAR BERLIN.



BERLIN 1892.

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I.

PROPERTIES, COMPOSITION AND SOURCE OF LANOLIN.



Now that Lanolin after five years existence has made for itself an enduring position in *Materia Medica* and its applications increase in number year by year, a short resume of the treatises on its action and application which have so far appeared, will be of value to physicians for purposes of rapid and convenient reference.

In the first place however we append a few brief notes on the characters of the substance itself.

After LIEBREICH had succeeded in detecting cholesterin fats in horny tissues, as for instance in the human skin, in hair, in fishbones, the beaks of birds, feathers of geese, of poultry, of doves etc., he expressed his conviction that these substances are not accidentally present in keratin tissues but possess a physiological importance. He was able to establish as fact the formation of cholesterin fats in the keratin-cells themselves. The therapeutical value of Lanolin depends upon this relationship of cholesterin fats to keratin substances.

Lanolin forms a whitish mass of ointment-like consistence with a faint smell reminding of wool; it is neutral in reaction; when kneaded with water it will take up more than its own weight without losing its consistence. It is insoluble in water but freely soluble in ether, benzene and acetone.

With reference to its chemical composition Lanolin is regarded as a mixture of different fatty-acid-compounds (ethers of fatty-acids). These are not however glycerine compounds but compounds of fatty acids with Cholesterin and Isocholesterin.



II.

SHORT ABSTRACT

OF THE

LITERATURE OF LANOLIN.

1.

On Lanolin a new Ointment-base. By Prof. O. LIEBREICH, Berlin. (*Berl. klinische Wochenschr.* No. 47. 1885.)

In connection with the physiological facts detailed above, LIEBREICH emphasises the difficulty with which Lanolin is decomposed by alkalies. The cholesterin fat (Lanolin) allows itself to be readily mixed with glycerine and with fats, and in this way exceedingly agreeable cream-like ointments could be obtained. Of particular importance is the capacity of the skin to become saturated with Lanolin and at the same time to introduce the medicament into the epidermal structures.

2.

On the therapeutical application of Lanolin. By Dr. LASSAR, Lecturer at the University in Berlin. (*Berl. klinische Wochenschr.* 1. February, 1886.)

The author ascribes to Lanolin a great power of penetrating the tissues. After the rubbing in of a piece about the size of a pea the skin appears tighter and turgescient but the surface is quite dry. If any parts of the body are rubbed with Lanolin and others with an ordinary ointment it is easy to distinguish between the places to which the applications have been made; the Lanolin disappears more rapidly and completely from the surface of the skin. Lanolin is particularly capable of penetrating to the deeper layers of the skin and is better borne

thereby than other fats. Upon this latter point Liebreich made experiments on 400 patients in no one of whom did he observe any injurious action of the preparation. Even in affections associated with irritability of the skin, Lanolin proved itself advantageous. LASSAR obtained good results in the treatment of facial eczema with a 2 per. cent salicylic lanolin-ointment and with a salicylic lanolin-paste (Acid. salicyl. 2 drm., zinc oxide, Amylum aa. 1½ oz. Lanolin 3 ozs). Further the remedy proved of best service in the form of the modified WILKINSON ointment in the treatment of Pityriasis versicolor, Scabies. Tylosis, Sycosis and various kinds of acne. The scaling-off of the superficial skin layers is accelerated and this process furthers the purification of the skin from comedones, parasites and microbes. As a typical example for the indications of Lanolin, psoriasis may be taken. Lastly the author makes reference to the advantages of Lanolin for the inunction treatment and for affections of the hair. Under seborrhoic conditions it prevents the shedding of the bran-like scales.

3.

On the action of Lanolin in Skin Diseases. By Dr. EDMUND STERN, Neustadt a. H. (*Deutsche medizinische Wochenschr.* No. 15. 1886.)

Stern particularly mentions the therapeutical experiences that he has had with Lanolin. In the first place among affections which are favourably influenced by Lanolin stands eczema. In numerous cases of eczema on the most various parts of the body, in adults and children, where previously the official preparation (Unguentum Diachyli) had been applied, the ointment prepared with Lanolin did good service. The shedding of the skin of the affected parts always took place rapidly without however the appearance of symptoms of irritation as sequelæ. A serviceable ointment ought not to be too rapidly absorbed; it should adhere to the surface for some time, for here occur the pathological changes which it has to arrest. The ointment must take a middle place between such substances which are absorbed at once and such as are not absorbed at all. These properties are possessed by Lanolin. A part of the mass applied sinks into the epidermis and communi-

cates softness and elasticity whilst another part remains on the surface as a kind of depôt.

As regards Seborrhoea capitis, the author says that by the application of a Lanolin-cream (Cetaceum 1 part, Olive Oil 3 parts, Lanolin 4 parts. Water 5 parts) the disappearance of the scurf was so strikingly rapid that the patients themselves were overjoyed at the success. Further a series of itching affections was treated with a WILKINSON'S ointment prepared with Lanolin. Whilst commonly 10 to 12 days were requisite for the cure of the itch with the ointment formerly applied, we were able with the Lanolin ointment to promptly subdue all symptoms in 5 or 6 days, probably because the penetrating power of the Lanolin into the epidermal layers of the skin brought about a prolonged contact of the parasitocidal substances with the pediculi and their eggs and so accelerated their destruction. In several cases of Herpes tonsurans the symptoms yielded fairly quickly to a Chrysarobin-Lanolin ointment. In short: the advantages of Lanolin are:—its long retention on the surface of the skin with at the same time its absorption by the epidermis, properties possessed by no ointment base previously employed, and its capacity for taking up over 100 per cent of its own volume of water, a feature which makes it particularly suitable for the preparation of cooling ointments. Lastly, the unique value of Lanolin lies in its great resistance to decomposition compared with other fats.

4.

Lanolin as a constituent of Ointments. From Court-councillor Prof. H. WIDERHOFER'S Vienna Clinic for Children's diseases. (*Allgem. Wiener medic. Zeitung* 1886.)

WIDERHOFER characterises Lanolin ointment for the treatment of eczema in children as „a magnificent remedy“. In his clinical report he says: The eczema that is met with on the flexor aspect of the elbow in these little children is treated in the manner described after: A piece of flannel is washed with soap until it lathers and the place is then rubbed with it. A 5 per cent. bismuth Lanolin ointment is spread thickly on linen and the affected parts are bandaged with it night and morning. This ointment, which forms fatty acids only with great diffi-

culty, is well borne by the skin of children whilst the other fats or vaselin very readily form these acids where they come in contact with the skin and this in children is very sensitive to fatty acids.

5.

Remarks on Lanolin. By Dr. WALTER G. SMITH, Physician at St. Patrick Dun's Hospital, Kings Professor of Materia Medica, School of Physic, Trinity College, Dublin. (*Brit. Med. Journ.* June 12, 1886.)

Smith reckons among the advantages of Lanolin its capacity for taking up large quantities of water: further it is neutral, does not turn rancid, and mixes with glycerine and other fats. It rapidly and deeply penetrates the epidermis and thereby facilitates the absorption of the drugs mixed with it.

A lead and carbolic acid Lanolin ointment cured a fiery-red strongly inflamed Eczema rubrum in three weeks. In a case of obstinate Psoriasis of 15 years standing which perpetually recurred, a Lanolin chrysarobin ointment, combined with the internal administration of arsenic, effected in a fortnight, resolution of the infiltration, arrest of the scaling and a cure. In a case of Rheumatic exudation which had lasted for years with pain and stiffness in the neck that gradually got worse and which was complicated by the presence, on both sides of the spinal column, of an intramuscular induration painful on pressure, an ointment of iodide of potassium, iodoform, morphine and Lanolin with the internal use of potassium iodide and calcium chloride effected removal of the pain in 3 weeks. The infiltration was considerably smaller and the patient could more freely, lift and rotate the head. In conclusion the author praises the virtue of Lanolin in acne and chapped hands.

6. .

Lanolin in Eye diseases. By Dr. M. LANDESBURG. (*Med. & Surg. Report.* 10. April 1886.)

The writer says: For ophthalmic practice the drugs if prepared with Lanolin must be prescribed in smaller quantities

than with other fats because the action is more powerful. With this precaution Lanolin ointments are applied with great success in external affections of the eye. Dr. LANDESBURG now employs Lanolin exclusively for the preparation of eye-ointments.

7.

Lanolin in Ophthalmic practice. By Dr. ALEX. S. PATTON.
(*Provinc. Med. Journ.* 1. Sept. 1886.)

In a great number of patients suffering with affections of the conjunctiva Patton employed an atropine boric Lanolin ointment with the most satisfactory results. The ointment very seldom caused irritation even in cases where an ordinary fatty ointment was ill borne. In most cases the ointment was directly spread on the conjunctiva and in no case was irritation observed.

8.

On the therapeutical value of Lanolin. By Prof. B. FRÄNKEL,
Berlin. (*Berl. klinische Wochenschr.* Feb. 1886.)

At the conclusion of a report made by Dr. LASSAR before the Berlin Medical Society Prof. FRÄNKEL spoke of some experiments performed by himself with reference to the application of Lanolin to the mucous membrane. He found as its most important property, that it prevented formation of crusts. In cases that had been long and vainly under treatment for catarrh inclining to atrophy with formation of crusts, cure was effected in a short time through the application of Lanolin. A second property is that it lessens secretion so that Lanolin is evidently indicated as an ointment base for preparations to be applied to the mucous membrane.

9.

Lanolin. By Dr. MACKEY. (*54 British Medical Association [Brighton] Lancet*, 1886.)

Dr. MACKEY reports very favourably on Lanolin; he had observed good success following its use in all skin diseases

and particularly in chronic joint affections of rheumatic origin. Potassium-iodide-Lanolin reduced swelling and soon secured freedom from pain. Psoriasis and glandular swellings were most favourably influenced by the remedy.

10.

Experiments on Lanolin. By Dr. L. R. PAVLOWSKY in Charkow. (*Ruskaia Medizina* No. 12 p. 307, 1886.)

As the outcome of his experiments the author comes to the following conclusions respecting Lanolin:

1. If narcotic extracts are rubbed with Lanolin and then applied to the skin they are rapidly absorbed and ameliorate pain with comparative certainty. The requisite doses are only twice as large as in the case of internal administration.
2. Sulphate of Quinine is equally easily absorbed.
3. Lanolin is better absorbed by children than by adults.
4. If the skin is previously washed with ether the absorption of the Lanolin is considerably facilitated.
5. In general Lanolin is a substance which is superior to all other ointment bases and even in certain cases makes the internal administration of medicaments superfluous.

11.

Experiments with Lanolin. By GEORGE H. FOX. (*Journ. Cutan. and Vener. Diseases. Vol. IV. No. 6. 1886.*)

The author reports upon the characteristic experiments described hereafter:

Places of 4 to 6 inches in circumference were marked on the flexor aspect of the lower arms of a young girl. On the place marked on the right arm 15 grains of lard were rubbed for 15 minutes; the left arm was similarly treated with Lanolin. After the 15 minutes the fat remaining unabsorbed on both sides was carefully removed by a spatula and weighed. The results were as follows:

Weight of Lanolin used	15 grains
" " " removed	5 "
remainder absorbed	10 grains
Weight of lard used	15 grains
" " " removed	10 "
remainder absorbed	5 grains.

From this it is clear that $\frac{2}{3}$ of the Lanolin penetrated the skin whilst only $\frac{1}{3}$ of the lard was absorbed.

12.

The application of Lanolin in Massage. By Dr. LEOPOLD EWER, Berlin. (*Deutsche med. Wochenschr.* No. 27, 1886.)

The relationship of Lanolin to the epidermis ensures its ready absorption through the skin: any excess is easily rubbed off without the necessity of washing with soap and water. Grease spots on the linen from Lanolin are rapidly removed by soap. I have tried in my Institution, says Dr. Ewer, all known Lanolin preparations and can confirm the statements made respecting them. After the application of Lanolin the skin exhibits an enhanced elasticity which it maintains for a long time. Primarily the preparation was too sticky but recently I have received a Lanolinum purissimum from JAFFÉ and DARMSTÄDTER which proves to be suitable for massage, allowing itself to be readily rubbed in and answering all the requirements of the masseur. After the conclusion of the massage it is only necessary to clean the part with a dry cloth. The skin remains then quite elastic and clean and there is no necessity to run the risk of subjecting the parts which have been treated to changes of temperature. I consider that having obtained such favourable results I ought to bring them under the notice of my colleagues.

13.

On Lanolin. By Dr. KEEN. (*Therap. Gazette*, 15 June 1886.)

The author reports on several cases successfully treated with Lanolin. One of these was a child of 8 years with enlar-

ged lymphatic glands under the chin as large as a walnut. An iodine-Lanolin ointment effected a rapid reduction of the swelling in a week. A similarly rapid reduction of glands the author had never before observed.

14.

Lanolin for the preparation of Blue Ointment. By Dr. B. BRANDIS, Sanitary Councillor in Aachen. (*B. Brandis' Principles of syphilis treatment p. 13.*)

BRANDIS writes in his book, on Lanolin: The blue ointment prepared with lanolin (lanolimentum mercuriale) is a very elegant smooth preparation without any unpleasant odour; the trials made with it speak decidedly in its favour. The rubbers report that it rubs in easily and, as they call it, dry, and it therefore seems probable that the blue mercurial ointment will be soon displaced by it.

15.

On the use of Lanolin. By Dr. SHOEMAKER, Philadelphia. (*Philad. Med. surgical Rep.*, 3 Apr. 1886.)

The writer regards Lanolin as a better ointment base than any which has hitherto existed. In the use of a 5 per cent Carbolic Lanolin Ointment and an equally strong Carbolic lard ointment the deadening of the sensibility of the embrocated skin was far greater with the former than with the latter preparation. Further the slight stickiness of the substance is a very valuable property to ensure intimate contact with the skin.

16.

The practical use of Lanolin. By Dr. SHOEMAKER. (*Lancet*, 14 Aug. 1886.)

At the meeting of the British Medical Association in Brighton the author speaking on Lanolin, said that it was a mild and soft ointment valuable for a great number of obstinate skin diseases. He had employed it himself with marked success for alopecia, chronic eczema chilblains and carbuncles.

On the absorption of medicaments in Lanolin Ointment.

By PAUL GUTTMANN. (*Archiv f. klin. Medic.*, 15 Sept. 1886.)

The author deals exhaustively with the question of absorption with particular reference to iodide of potassium and to salicylic acid. He comes to the conclusion that as an ointment base Lanolin does not cause a more powerful absorption through the skin of the two substances named than lard.

On Lanolin. From the Textbook of Materia medica by Dr. A. E. VOGEL and Dr. W. BERNATZIK (p. 723 Appendix).

The authors speak of Lanolin as follows: — Lanolin is particularly distinguished from the mineral and glycerine fats in that it can be rubbed into the skin with great readiness. A piece of 5 per cent Carbolic Lanolin ointment the size of a pea when rubbed into the hand, produces after 1 or 2 minutes, without caustic action, a feeling of numbness, and a sublimate Lanolin ointment exhibits the phenomenon of absorption so strikingly that a few minutes after rubbing in a one per cent preparation the characteristic metallic taste appears.

On the combined use of Lanolin with Cocaine. By Dr. E. WENDE. (*Med. Press.*, Dec. 1886.)

The preëminent absorptive energy ascribed to Lanolin induced WENDE to try the substance combined with Cocaine. The local treatment of wounds and chapped surfaces by the combined ointment turned out very satisfactorily; pain was rapidly annulled. The formula used was

Rp. Cocaini hyd. 20 grns

Lanolini 1 oz.

Mix.

The ointment was spread on linen or cambric and laid on the affected parts.

When a more cooling ointment is desired, as is particularly indicated in burns of the first and second degree, an addition of water to the ointment is suitable. For this purpose, only Lanolin can be used. The formula is

Rp. Cocaini mur. 1 drm.
 Aquæ dest.
 Lanolini 2 ozs.
 Cetacei 2 drms.

Still more suitable is the following method: The painful surface is first painted with a 2 per cent cocaine solution and then a 5 per cent carbolic Lanolin ointment is applied. This method has the advantage, besides being pain-soothing and protective, of being antiseptic which is of particular importance when an exudation from the wounded surface occurs.

The intolerable itching and burning feeling of pruritus ani is greatly relieved by a 5 per cent cocaine Lanolin ointment. The irritation is however often dependent upon simultaneously existing hæmorrhoidal eczema, fistulæ, constipation, liver affections, and the presence of oxyuris vermicularis. For this reason it is always essential to first find out the actual cause of the abnormality before proceeding to local measures.

The irritation of eczema, erythema or herpes is considerably ameliorated by an ointment compounded as under:

Rp. Cocaini mur. 24 grns.
 Bismuthi subn. 48 „
 Lanolini 1 oz.

M.

The so frequently associated excoriation and chapping of the skin in these diseases is rapidly corrected by an ointment of

Argenti nitr. 30—60 grns.
 Lanolini 1 oz.

M.

Lanolin at the Medical Congress in Philadelphia on the 7 Apr. 1886. Dr. THOMAS G. MORTON. (*Medical News*, 8 May 1886.)

The speaker said: Those who have used Lanolin as a constituent of ointments will have been very satisfied with it. It

very easily rubs into the skin and causing no irritation should apparently be of value in massage. Substances combined with Lanolin are more easily rubbed in than when applied in mixture with other ointment bases.

21.

The value of Lanolin. By Dr. SPANNOCCHI. (*Gazetta degli Ospitali. Nos. 28, 29, 1886.*)

The author recommends Lanolin on account of its neutrality, unalterability and its penetrating property which latter is explained by its analogy to and affinity for the epithelial tissue of the skin. Lanolin marks a true advance in materia medica.

22.

Lanolin, an excellent remedy against the so-called „Gletscher-brand“. By Dr. CARL ARNOLD. (*From the communications of the German and Austrian Alpine Society, No. 8, 1887.*)

An ointment composed of Acidum sulphoichthyolicum 1 drm, Lanolin 1 oz (troy) to which as corrective of the smell some Perubalsam has been added is an excellent remedy against the so-called frost burn (*Erythema exfolians*) as well as against “wolf skin” (*Eczema intertriginosum*). The ointment so prepared was given to twelve members of the Alpine Society for trial in the Alps and all had words of praise for the success of the application. A manufacturer B. suffered for years from irritation after several hours of glacier climbing, associated with pronounced inflammation of the skin of the face and with swelling of the nose; a merchant, S., always lost the skin of his face after a single day as did also an architect, G. These gentlemen were protected from the above-named inflammatory processes by assiduously rubbing exposed surfaces with the ointment.

The action of the ointment in cases of “wolf” cannot be too highly praised; in a half to one hour after application the cure is complete.

23.

On Lanolin. Dr. CLOETTA'S Textbook of Materia Medica by Prof., Filehne. (*p.* 339.)

The author says: — Lanolin the cholesterin fat of wool with axungia porci aa. and aqua destill. gives an excellent ointment base with the power of penetrating the epidermis.

24.

Experiences on the treatment of Eczema. From the 45. Annual Report of the St. Joseph's Children's Hospital. (*Deutsche med. Zeit.*, 5 Dec. 1887.)

Opportunities frequently offered for the use of Lanolin and mostly as a vehicle for the various active medicaments as tar and boric acid. In particular a 10 per cent. tar Lanolin ointment proved of value in scaly eczema. It was made by the formula:—

Olei Cadin. or Rusci
Olei olivar. aa $1\frac{1}{2}$ drm.
Lanol. purissim. 1 oz.

or

Olei Rusci
Olei olivar
Zinci oxyd. aa 5 grns
Lanol. purissim. 1 oz.

The lanolin proved itself specially valuable in the form of embrocations in all cases in which the skin was dry and scaly and could then be either used by itself mixed with oil in order to obtain a suitable consistence for application or in the form of a boric ointment of the formula:—

Acidi Borici $1\frac{1}{2}$ drm.
Olei olivar. $1\frac{1}{2}$ —3 drms.
Lanol. purissim. 1 oz.

This boric-Lanolin ointment was of excellent service in those various affections of the lips which in children so frequently obstinately resist all medical treatment.

25.

Treatment of Pityriasis versicolor. According to E. BESNIER.
(*La France médicale* 100, 1887.)

First the skin is well rubbed with tar-soap and then in the evening smeared with an ointment made according to the following formula:

Lanol. pur.	
Vaselin am. aa	1 oz.
Acid. salicyl.	1 drms.
Sulphur. præcip.	3 drms.

The next day the ointment is removed by washing and after a week only a few parasites can be microscopically discovered.

26.

The Coated Bougie in chronic Gonorrhœa. By Dr. LEOPOLD CASPAR, Berlin. (*Berl. klin. Wochenschr.* No. 5, 1887.)

The water-absorbing power of Lanolin induced Caspar to substitute it for the cacao-butter previously employed for the bougies. The latter smeared with a 1 to 2 percent sulphur Lanolin mass were introduced into the urethra of patients suffering from chronic gonorrhœa. The advantage of the Lanolin application lay in the fact that this fat absorbed the aqueous secretion found in the urethra and enabled the medicament to come in direct contact with the diseased mucous membrane.

27.

On the Pathology of chronic and acute Urethritis. By Dr. FINGER, Lecturer in Vienna. (*Therap. Monatsh.* No. 12. p. 499, Dec. 1889.)

The author applied nitrate of silver with Lanolin ointment as a vehicle which was injected into the urethra by a TOMMASOLPS syringe or he smeared the Lanolin ointment on the sounds of Otis and Unna.

Lanolin and its application in Massage. By Dr. SIMON ECCLES. (*Therap. Monatsh.* No. 10, 1887.)

The author gave a demonstration of the manipulation practised by him in massage: Effleurage or stroking the muscles, petrissage or kneading the muscles, tapotage or tapping the muscles. For his hands he used Lanolin and preferred it far before vaselin or other preparations. He had applied massage in chronic dyspepsia with exclusion of all medicaments with great success and similarly in the treatment of stiff and painful joints. It can be carried out according to circumstances three or four times a day. If the patient complains of weariness, this is a sign that the massage is well practised. In order to avoid the possibility of a rupture of an ulcer ventriculi or of the like a very careful diagnosis is necessary.

Investigations on the Germ-content of Lanolin. By Dr. C. FRÄNKEL, Assistant at the Berlin Hygienic Institute. (*Centralbl. f. Bacteriol. u. Parasitenkunde* Vol. 1, No. 5; 1887.)

Lanolin in the different stages of its preparation and as it comes into commerce was added to the ordinary nutrient gelatine and the microorganisms originally contained in the Lanolin were determined according to the number and kind of the colonies of bacteria subsequently developed. Four platinum looped wires (Ösen) full of the fatty substance were introduced into liquid warm (37° C) gelatine, assiduously stirred round in it and the nutrient solution then either poured on the plates, or, according to ESMARCH'S method, divided on the walls of the reagent glass. With each of six samples, 10 different experiments were carried out, in the whole therefore, 60 plates or rather tubes were prepared. The result established with certainty the complete freedom of the finished product from microorganisms. This at least is evident: that the finished Lanolin is a germ-free substance; that this fact is directly explained by the manner of its preparation, and that the question as to the possible transference of the poison of

spleen fever or of other contagious affections by Lanolin prepared in the way alluded to, may be regarded as decided in the negative.

30.

Remarks on the surgical application of the Lanolin preparations. By Dr. P. GÜTERBOCK, medical Councillor in Berlin. (*Berl. klin. Wochenschr.* No. 17, 1887.)

In spite of the repeated expressions of the high value of Lanolin in local application which have been called forth since its introduction by O. LIEBREICH it appears so far to have been little used with dressings. GÜTERBOCK has tested it on about 22 patients during prolonged periods of treatment, apart from a not unimportant number of casual applications. Particularly he treated certain cases of recent burns of the second and third degree, and made observations of several ulcers of the leg and of complications of wounds with obstinate medicinal eczema such as the prolonged employment of carbolic acid, iodoform, sublimate and other antiseptic substances is liable to give rise to. The Lanolin was always applied mixed with zinc oxide or iodoform in the proportion of 10:1 spread on linen or on gauze and laid in the previously thoroughly disinfected surface: over this was placed a layer of ordinary wool and an aseptic gauze bandage.

The reality of the success obtained by the use of Lanolin in this form can be seen from the systematic behaviour of the various cases. With quite isolated exceptions it was well borne not only when applied once or a few times but also when the treatment was prolonged for a series of days or even weeks, often also in such cases where previously, ointments prepared with fat or vaselin had proved injurious or at least unpleasant to the patients. As regards the curative action it was most brilliant in cases of recent burns and of so-called medicinal eczema, and in ulcers of the leg it was at least evident, particularly since the Lanolin treatment was almost exclusively resorted to where all other remedies have failed; in many instances there were very wide spread ulcerations, as the patients took no pains to protect their diseased limbs and at the same time showed disinclination to observe the rules of ordi-

nary personal cleanliness. That under such circumstances there was only a single case in which no healing or improvement was observed during the Lanolin treatment must be regarded as decidedly in favour of the latter. It may be assumed with certainty that the local Lanolin treatment will complete with advantage in suitable cases, other kinds of treatment, by ointments, of ulcerous and necrotic processes of the soft parts, or rather will more or less surpass them according to the extent of their application.

31.

The behaviour of microorganisms with Lanolin. By Dr. A. GOTTSTEIN, Berlin. (*Berl. klin. Wochenschr.* No. 48, 1887.)

When this subject was being discussed in the Society of Medicine in Berlin, Gottstein showed that the crude as well as the finished lanolin was not only free from germs but that chiefly by virtue of its chemical constitution it is not a favourable medium for the culture of microorganisms; it can be regarded as even resistant to the germs. This feature is due to the difficulty with which Lanolin splits up or decomposes; it does not become rancid. Even such microorganisms as have the reputation of being very modest in their claims for a culture medium could not be induced to develop on Lanolin. Gottstein called attention to the interesting, and for therapy important, fact, that the skin under normal conditions contains a substance (Cholesterin fat) which is not only undecomposable but also impenetrable to bacteria. With these facts, is probably connected the readiness with which boils appear under certain conditions associated with an abnormal dryness of the skin (Convalescence from typhus, atrophy of children).

32.

On the present after-treatment of the operation for cataract. By Prof. Dr. A. ROTHMUND. (*Med. Chirurg. Centralbl.* Vienna, 16 Dec. 1887.)

An important part of the after-treatment of the operation for cataract is that by means of a dropping glass the part

adjacent to the wound should be several times carefully washed over and then a double sublimate gauze bandage applied. If individuals with tender irritable skin are under treatment a light smearing of the conjunctiva with Lanolin-boric ointment before laying on the bandage is highly commendable because it occasionally happens that even after a single application of the sublimate gauze bandage a eczema-like skin eruption develops, the treatment of which often causes more trouble than the operation itself particularly in old people.

33.

The local treatment of Varicose veins. According to Dr. KOBERT. (*Intern. klin. Rundsch. No. 38, 1887.*)

The author recommends an ointment made according to the following formula:

Rp. Bar. chlor. 40 grms.
Solve in Aq. dest., agita, adde
Lanolin puriss 1 oz.
Ol. amygdal. 3 drms.

To be rubbed into the enlarged veins three times a day.

34.

Impure Lanolin. By Dr. MEYER, Berlin. *Deutsche med. Wochenschr.*, 12. May 1887.)

Dr. MEYER had observed a Dermatitis acuta of the scrotum produced under the application of impure Lanolin, in a patient who had rubbed in an iodide of potassium Lanolin ointment. Even after ordering Lanolin purissimum the dermatitis — which MEYER ascribed to the injurious action of the fatty acids in the impure Lanolin — did not disappear.

35.

Lanolin in comparison with other fats. By Dr. STELLWAGON. (*Journ. of Cutan and Vener. Diseases No. 4 and 5.*)

According to the author Lanolin is much more rapidly taken into the skin than other fats — a peculiarity which has a

clinical significance and much more a therapeutical value. In acute inflammation of the skin where a superficial general protective is desired the rapid absorption of the substance is not very advantageous; in such cases ointments prepared from cold cream, vaseline etc., are more to be commended. But so much the greater is the advantage of Lanolin in Chronic eczema, Psoriasis and similar affections of the skin accompanied by thickening and infiltration and in which a more energetic and rapid absorption of the fat applied is desired.

36.

Therapeutical experiments with pure Lanolin. By Dr. M. WULFSBERG, Christiania. (*Therap. Monatsh.* March 1887.)

The author first of all gives a prominent place to the application of Lanolin against pruritus and prurigo senilis. In a case of pruritus in a woman of 80 years which had been repeatedly and unsuccessfully treated, partly by internal remedies and partly by washings and fatty embrocations, Lanolin was finally tried. A short time after the first embrocation the itching ceased; the patient enjoyed quiet sleep during the first night and in a few days the condition was so much improved. that since, she has only had occasion twice to rub in a small quantity of Lanolin.

In a case of prurigo senilis in an old woman of 88 years the skin was covered with pimples and pigment spots, and the patient was emaciated and generally in a very bad condition through irritation and sleeplessness. WULFSBERG had an ointment of equal parts of Lanolin and fat prepared and ordered a fourth part of the body to be rubbed with this every evening. A turn for the better followed during the first days of the treatment; sleep and appetite returned and after 4 weeks the condition of the patient was normal. The embrocations were stopped and if the patient ever complained of a slight itching of the neck or arm this was immediately arrested by the use of Lanolin.

In simple cracking and excoriation WULFSBERG ordered Lanolin partly to be rubbed in and partly spread on a compress of purified cotton wool and so laid on the places. It acted as a protective covering, ameliorated the pains and fav-

oured the formation of fresh epidermis by the softening and relaxation of the neighbouring skin.

He found a mixture of anhydrous Lanolin with 10 per cent of zinc oxide much preferable to the ordinary zinc ointment by its property of readily adhering to moist surfaces and of being easily absorbed by them.

Still better results were attained by WULFSBERG with 10 and 20 per cent boric lanoliniment; with the former two cases of herpes circinatus were treated. One case occurred in an elderly gentleman engaged in a cigar-shop, whose wrists and the back of the hands had been for weeks the seat of a well defined eczema; the other patient was a woman who after wearing a red woollen vest had suffered from a great number of itching, but dry round eruptions, on the shoulders and upper part of the back. Both cases were cured within a week. The 20 per cent boric ointment specially proved very useful in a recurring eczema.

Tar remedies were also beneficially applied as lanolini-ments as the following example shows:— N. N. a naval cadet had during a journey in the tropical seas nine months before contracted a dry eczema of the hands and face which gave the latter, and particularly the nose a conspicuous appearance. He was ordered to apply

Ung. basilic. (with 12% Pix Liquida) 1 drm

Lanol. pur. anhyd. 9 drms

In a fortnight the trouble was cured and has not since returned.

An ergotin ointment (10 per cent) frequently prescribed by WULFSBERG in haemorrhoidal affections is also prepared with anhydrous lanolin, and used with good success.

Lastly WULFSBERG had applied in a number of cases a Lanolinimentum Hydrargyri ciner. partly undiluted and partly rubbed down with twenty times the quantity of anhydrous lanolin. The weaker ointment proved very effective against parasites; only a few applications were necessary to exterminate numerous colonies of pediculi pubis and the disagreeable irritation of the skin which very often follows the use of the ordinary mercurial ointment never occurred. The ointment was also resorted to for the treatment of a chronic infiltration of the tendo Achilles (sequel to an ulcer) and in a week its absorption was complete.

In leucorrhoea with a strongly irritating secretion the stronger mercurial lanoliniment was used by WULFSBERG with good success.

37.

Lanolin in the treatment of atonic ulcers of the leg. By Dr. APPENRODT, Clausthal. (*Deutsche med. Wochenschr.* 14. June 1888.)

After alluding to the difficulty of curing certain ulcers of the leg, the author recommended against these affections, massage with Lanolin. The treatment is begun with gentle effleurage under the knee which is carried gradually farther backwards; all strong pressure should be avoided at first. The exudation of lymph from the excoriated places and its appearance on the ulcer itself furnishes a preliminary sign of the success of the manipulation. — The best fat to use is Lanolin (JAFFÉ and DARMSTÄDTER) because it is least irritating and on account of its stickiness best protects the skin from the effects of the rubbing. After the massage as before it, the surface must be well washed and disinfected and the ulcer as well as all wounded places covered with linen spread with Lanolin over which is placed oiled-silk and lastly an ambric band. The addition of antiseptics to Lanolin is unnecessary and indeed in most cases injurious owing to their irritating properties. When the skin is less sensitive the ulcer can be covered with iodoform gauze, but generally it gives rise to erythema. Covering with impermeable materials should be rigorously avoided.

Under this simple treatment the swelling of the limb generally goes down, the secretion of the eczematous places ceases and the first granulations appear in the ulcer. It is seldom necessary to combat the eczema by the addition of zinc oxide and starch to the lanolin or to further the granulation by a weak sulphur ointment.

38.

The Eczema of Children. By Dr. OSCAR A. FLIESBURG. Hudson, WISCON. (*Med. Register Philadelphia.* 7. 1. 88.)

As the best preparation against the obstinate eczema of children the author recommends

Ung. Zinci oxid. benz. or
 Ung. Diachyli Hebrae
 or before all an ointment of the following composition
 Acid. salicyl. 16 grns.
 Zinci oxidi 1½ drms.
 Lanol. puriss. 1 oz.

He considers resorcin the best of all preparations for the chronic form.

39.

The general treatment of Syphilis by injections of grey oil (*Oleum cinereum*). By Prof. E. LANG, Vienna. (*Wien. med. Wochenschr. No. 18, 1888. Communicated by Dr. J. TROST.*)

In 1885 Prof. Dr. LANG recommended for the general treatment of syphilis, subcutaneous injections of a preparation of mercurial ointment and oil that he called grey oil (*Ber. d. Innsbruck. naturw. med. Ver., Jahrg. 15 p. 20*). Since that date the treatment was regularly applied in his hospital and TROST published the results which he deduced from a great mass of material relating to the method.

With regard to the preparation itself; it consists of a blue ointment rubbed up with pure olive oil. For the preparation of the ointment pure metallic quicksilver is used which is completely extinguished by rubbing with an equal part fresh Lanolin. The ointment is kept in a cool place and the necessary quantity taken each time the grey oil is to be prepared. A 30 per cent mixture (Ung. ciner. lanol. 6 parts, oleum olivar. 4 parts) was used which was injected into the back and the nates. The treatment was commenced by TROST on Nov. 23. 1887. At first infiltration followed the injections; this was ascribed in part to the impurity of the preparation and in part to the want of practice in the manipulation. Since however TROST had the ointment and the oil prepared with strict precautions and himself supervised the cleaning of the syringe no abscesses ever occurred although to 103 patients about 1100 injections were given. Since Febr. 1888 TROST used a 30 per cent oil and as a rule injected once weekly, 0,3 ccm (about 15 or 16 minims) of the preparation into two places in

the back. When the general symptoms had disappeared half the above dose was continued for some time as after-cure. The preliminary results obtained with the method were described as satisfactory: any more-detailed particulars were reserved for later publication.

40.

Lanolin in Ophthalmic practice. By Prof. HIRSCHBERG, Berlin.
(*Therap. Monatsh. No. 2, 1888.*)

The author writes: — To the local treatment of conjunctival vesicles belongs also that of the nose. He prescribed Iodoform 24 grns, Lanolin 1 oz to be applied with a brush every evening. The affection of the eyes was in this way cut short and relapses were prevented.

The second and stronger remedy against the vesicles consisted in the painting on of a precipitate ointment containing 2 per cent of the mercurial; this was specially ordered for old people.

41.

The principles of the topical treatment of Eczema. By Dr. A. JARISCH, Lecturer at the University, Vienna (*Centralbl. f. d. gesammte Therap. 6th. Year No. 1, 1888.*)

JARISCH says: — Besides softening and removing the products of the disease, the fatty substance produces suppleness and pliancy in the dry scaly skin by mere application. Its application is therefore indicated in all cases in which, consequent on extensive eczema, the skin has become dry and scurfy, in order to prevent the formation of fissures in the dry epidermis and the increased irritation which usually follows.

The choice of applications must be made, as a matter of course, with consideration of the enhanced irritability of the skin and in this respect Lanolin will be found to answer best without addition except perhaps 10 per cent of olive oil to facilitate its rubbing; or it may be used in the form of a 10 per cent boric Lanolin or a 1 to 2 per cent salicylic Lanolin ointment etc.

Unguentum Ichthyolicum. By Dr. UNNA, Hamburg. (*Pharm. Zeit.*, 11. Apr. 1888.)

The ichthyol ointment most prescribed by UNNA has the following composition:—

Ichthyol 1 oz
Salicylic acid $1\frac{1}{2}$ drms
Lanolin. pur.
Adeps añã 3 drms.

Also another ichthyol ointment was prescribed by Dr. UNNA which is distinguished by its cooling properties and which consists of equal parts of ichthyol and water while the fatty base is made up of Lanolin.

On a new Antiblennorrhagic. By Dr. E. FINGER, Lecturer at the University, Vienna. (*Internat. klin. Rundschau.* 6. May 1888.)

FINGER again recommends Lanolin ointment here against chronic gonorrhoea: "Lanolin is the only vehicle known which adheres strongly to the mucous membrane and simultaneously is absorbed by it. Further it has the advantage of being aseptic and antiseptic a circumstance on which its value in the treatment of urethritis no little depends though it is at present too little considered.

Lanolin must therefore particularly commend itself *a priori*, as a vehicle for the application of astringents to the urethra."

The use of the Tommasoli syringe is, as regards the application of the various lanolin ointments in the treatment of the local form of chronic blennorrhoea, essentially preferable to all methods of treatment hitherto known.

In recent cases the ointment most useful is prepared as follows:—

Rp. Argent. nitr. or Cupr. sulph. 5—15 grns
Lanol. puriss. anhydr. $7\frac{1}{2}$ drms
Ol. olivar. $\frac{1}{2}$ drm.
Misce exactissime.

For obstinate cases the iodide ointment is preferable

Rp. Potass. iodide 25 grns
Iodi pur. 5—15 grns
Lanol. pur. anhydr. $7\frac{1}{2}$ drms
Ol. oliv. $\frac{1}{2}$ drm

Misce exactissime.

Finally FINGER praises a creolin ointment

Rp. Creolini 5—15 rys.
Lanol. pur. anhydr. $7\frac{1}{2}$ drms
Ol. olivar. $\frac{1}{2}$ drm

Misce exactissime.

44.

On the application of Lanolin with boric acid in certain skin diseases of children. By Dr. RUSSELL STURGIS.
(*Boston Med. Surg. Journ.* — *Monatsh. f. Dermat.* No. 14, 1888.)

The above mentioned combination is most warmly recommended by the author for the treatment of eczema of the face and head (*E. squamosum*; *E. rubrum*) and similarly for that of Intertrigo as well as the mild form of Seborrhoea which is frequently met with on the forehead nose and chin.

For eczema of the face and head the parts are first cleaned and then during the first 48 hours kept dusted with very finely powdered boric acid. The secretion is at first increased but after 24 hours it is again diminished. After careful washing boric acid is applied morning and evening the old crusts being removed first. As soon as the skin is in a condition to bear ointments the author prescribed: Acid boric 2 drms: Lanolin 1 oz.

In cases of eczema squamosum with considerable induration of the scales, the author recommends that the latter should be removed by assiduous rubbing with olive oil and washing with soap. After complete cleansing a salicylic ointment (*Ac. Salicyl* 5—16 grns; Lanolin 1 oz) is energetically rubbed in. Sturgis ascribes the pronounced activity of the ointment to the penetrating property of the Lanolin and the introduction of the salicylic acid into the deeper lying tissues which is thereby alone made possible.

The author also regards Lanolin as a reliable remedy for the alleviation of itching in chronic urticaria.

45.

The treatment of syphilis by injection of Calomel oil and oleum cinereum. By Prof. DOUTRELEPONT, Bonn. (*Deutsche med. Wochenschr.*, 20. Sept. 1888.)

The author confirms the experiences of NEISSER that calomel oil is an active antisyphilitic and simultaneously recommends as a valuable preparation the oleum cinereum prepared with Lanolin of Lang. The formula is

Rp. Hydrarg.

Lanolini ana. 1 oz.

Ol. olivar. 1 fl oz.

As to the dosage and activity of the preparation itself the author remarks that in moderately severe forms of the disease he found it necessary to use $4\frac{1}{2}$ grns of the grey oil weekly for two to three weeks in order to cause the disappearance of the symptoms. In general 22 to 30 grns was sufficient to cause the cessation of all symptoms. Lang emphasised rightly as advantages of the grey oil the accurate dosage, the convenient method of application and the slight reaction. Suppuration at the point of injection was never observed.

With reference to the activity of the preparation Lang said, he had seen with it very favourable results in severe forms of syphilitic affections of the nerve-centres and in short the authors recommended the two preparations (calomel oil and oleum cinereum) for the treatment of syphilis as being energetic and prolonged in action.

46.

On the newer Therapy of Eczema. By Dr. VEIEL, Cannstadt. (*Med.-Chirurg. Centralbl.*, 5. Oct. 1888.)

As a proof of the non-irritating properties of Lanolin as an ointment base compared with the older fats the remarks of the author made casually in a report are significant. He says: pure American vaselin is best borne; the paraffin ointment of the German Pharmacopoeia is by no means a happy

combination being strongly irritating so that the official 10 per cent iodide of potassium ointment is so also while an ointment five times as strong with Lanolin does not irritate.

47.

How shall the Physician protect his hands? By Dr. GEORGE MEYER, Berlin. (*Beri. klin. Wochenschr.* No. 2, 1889.)

In order to prevent the skin affections of the medical man — redness, eczema, fissuring etc — which arise from the use of the disinfectants used in these days, MEYER recommends a *modus procedendi* which has served him (who suffered for years from red hands) better than all other methods. It has nothing to do with the mode of disinfecting the hands but is only designed to keep the skin in a normal condition. Every time after the hands have been well washed with a readily lathering soap, rinsed and dried, they should be well smeared especially the backs with a small quantity of Lanolin which is thoroughly rubbed in; the hands are then rubbed free from excess on a cloth. (Lanolin is easily washed out from linen and towels.) It is essential that the Lanolin should be rubbed into the skin as completely as possible. MEYER attributes the favourable action of the Lanolin in such cases to its property of readily mixing with water whereby the moisture remaining on the skin after washing the hands and insufficiently drying is taken up by the Lanolin, and the hands protected by a minuter layer of fat impenetrable to the raw air.

In his practice he had also employed the method with good success for the face of actors for instance, whose skin suffered from the application of paints.

48.

Lanolin as an excipient for extracts in the preparation of suppositories. By M. L. BROUTIN. (*Süddeutsche Apotheker-Zeit.* No. 3, 1889).

Lanolin considerably facilitates the introduction of extracts or other bodies soluble in water into Suppositories. If the choice of excipient is left to the

pharmacist he should replace a small part of the cacao-butter by Lanolin whereby good results are always obtained. The extract is heated in the necessary quantity of water to dissolve it, the solution mixed with Lanolin, the previously melted cacao-butter added and the whole well stirred together and poured into the moulds as soon as it begins to become thick.

49.

Mercurial-Lanolin in certain diseases of the cornea. By Dr. DARIER. (*Wien. med. Presse* No. 14, 1889.)

Local embrocation of mercurial lanolin into the cornea and the bulb is very serviceable in diffuse corneal infiltration and does not cause acute inflammatory symptoms. Certain slight forms of keratitis interstitiales and superficiales and progressive leucoma can be entirely cured by this treatment, the embrocations working both mechanically as well as antiseptically and solvent. The ointment is prepared from equal parts of mercury and Lanolin and a fourth part of vaselin may also be added. The absorption of the ointment on the part of the cornea is so lively that in many patients after a time stomatitis appeared. In the discussion Abadie added that in the chronic inflammation of the lachrymal gland with fistulæ so frequently seen in scrophulous children, local embrocation of iodoform-Lanolin in the neighbourhood of the gland in combination with the general treatment, yielded astonishingly favourable results.

50.

New Lanolin Ointments. By Dr. E. STERN, Mannheim. (*Therap. Monatsh.*, Febr. 1889.)

Under this name STERN gives the formulæ of a few ointment bases containing Lanolin which proved very useful in the treatment of affections of the skin and mucous membrane.

Sapolanolin.

1. Lanol. anhydr. $2\frac{1}{2}$ ozs
Sapon. mollis 2 ozs

2. Cerae flav.
Lanol. anhydr. ana 2 ozs
Ol. olivar. 1 oz.
 3. Lanol. anhydr. 1 oz
Ol. amygdal. ad 4 ozs
- Liquid Lanolin injections.

This form is designed for syringing into cavities lined with mucous membrane, for instance, into the urethra. For this purpose it can be emulsified with aqueous solutions of medicaments (zinc, salicylic acid etc.).

51.

Some therapeutical Notes. By Dr. W. EBSTEIN, Breslau
(*Deutsche med. Wochenschr.*, 7. Febr. 1889.)

EBSTEIN makes noteworthy communications on the treatment of decubitus. The most important indication in such cases, is, as is well known, prevention, i. e. the preservation as long as possible of the protective epithelial layer of the skin. If this is once removed the doors are wide opened to the great army of germs which find in the tissues, destitute of vital energy, the most favourable conditions for development. Thereby is caused the breaking down of the tissues so much feared as unpleasantly complicating the treatment of severe chronic diseases. Against our efforts to prevent the colonisation of the germs the circumstance unfortunately militates that all the known antiseptics more or less attack the surface to which they are applied. Reasoning from the fact proved by GOTTSTEIN that Lanolin is a normal constituent of the human epidermis and may preserve that tissue from penetration by germs, Prof. ROSENBACH applied it as a means of preventing bed-sores. All patients who were kept in bed for a prolonged period by severe diseases were treated as follows; — those parts of the body which were subject to pressure were first cleansed, then assiduously rubbed with Lanolin and protected by wool from further pressure. The method was found to be of excellent service in a great number of chronic affections treated during a period of nine months. Even where excoriation or the suspicious preliminary reddening of the skin had already appeared the application of Lanolin rapidly

effected a cure. The deep ulcerating sores which previously could never be excluded from the large wards were only exceptionally observed after the general introduction of the prophylactic Lanolin treatment.

A further use of Lanolin is indicated by EBSTEIN. The erythema or erysipelas which is frequently produced by the decomposition of the exudant liquid after the puncture of an ascites or the scarification of oedematous surfaces may be readily avoided by energetic embrocation of the puncture.

52.

Sublimate-Lanolin as an antiseptic. By Dr. A. GOTTSTEIN, Berlin. (*Therap. Monatsch.*, March 1889.)

As is known KOCH showed by his researches on disinfection that carbolic acid dissolved in oil or alcohol does not exert the slightest disinfectant action. The antiseptics soluble in fats when mixed with Lanolin behave according to GOTTSTEIN exactly similarly to the oleaginous solutions i. e. they are antiseptically absolutely inactive.

In direct contrast to these is the behaviour of sublimate Lanolin. GOTTSTEIN was able to furnish proofs showing that this preparation was quite as powerful a disinfectant as the aqueous solution of sublimate. From his researches it is seen that a body like sublimate which showed a great solubility-affinity for water preserved its disinfectant action in fatty ointment emulsions whilst according to KOCH those substances which possess a great solubility in fats are, so far as disinfection is concerned, inactive.

53.

On the Application of Lanolin. By J. H. MILLER & GOUGH. (*Pharm. Zeit* No. 26, 30. March 1889.)

In a paper read in Edinburgh MILLER recommended anhydrous Lanolin as a pill excipient for permanganate of potassium. One part of Lanolin is sufficient for ten parts of the salt: an excellent mass results and the pills are distinguished by their smallness and elegance. This recommendation is en-

dorsed by others among whom is GOUGH who adopts the following proportions:

Potassic permang. 36 grns,
Kaolin 3 grns,
Lanolin q. s. ut ft. massa.

54.

The external application of Antifebrin. By Dr. A. H. NEWTH.
(*Therap. Gazette*, May 1889.)

Newth has recently applied antifebrin externally with Lanolin in the proportion of 20 grns to one ounce, having observed that in cases of obstinate irritated ulcers it alleviated the pains and removed inflammation. Against psoriasis it gave excellent results, when combined with mercury and similarly in combination with other substances it proved very useful against erythema, eczema, herpes, and urticaria.

55.

Boric acid Lanolin. By Prof. Dr. LIEBREICH. (*Therapeut. Monatsh.*, July 1889.)

The author pointed out that heat and friction produce slight intertrigo in children, corpulent persons and old people which if neglected leads to eczema with an unpleasant smell. In the treatment of this trouble he has found beneficial an ointment made as follows:

Acid. boric. 5 grns.
Lanolini 1 oz,
Vaselin amer. 1½ drms,
M. ft. ung.

56.

On the treatment of Frost Bites. By Prof. Dr. LIEBREICH.
(*Therap. Monatsh.*, Dec. 1889.)

The author recommends as approved and pleasant a camphor ointment:

Rp. Olei camphorat. $\frac{1}{2}$ drm,
 Lanolini 1 oz,
 M. Ft. ung.

The same ointment is also recommended by LIEBREICH for cold damp feet which particularly lead to chilblains; its application is a good prophylactic.

Prof. NILS O. GADDE recommends as excellent for chilblains a

Ichthyol-Lanolin Ointment 50 0/0.

57.

The treatment of Syphilis by means of injections of Oleum cinereum. By Dr. G. MANDRY. (*Deutsche med. Wochenschr.* No. 35, 1889.)

In the Cologne Hospital Mandry tried the subcutaneous injection of grey oil in the form given by LANG and obtained very favourable results. The following method proved to be the best: Every week 0.3 of Oleum cinereum was injected; as soon as the symptoms had unmistakeably given way, but at the latest after five weeks (and therefore 5 injections), the injections were stopped and if necessary after a fairly long interval (6—8 weeks) again resumed. The influence of the treatment on the general health is favourable and as concerns the success 16 men, 61 women (72 per cent) were cured, 6 men and 5 women (10 per cent) were improved and 3 men (3 per cent) unaffected. In many cases even after two injections a clear recession of the syphilitic symptoms was perceptible and in almost all after 4—5 injections absolute disappointment was never met with.

58.

The Treatment of Chronic Gonorrhœa. By Dr. MAX BENDER. (*Archiv f. Dermat. u. Syphilis*, No. 3, 1889.)

The author expresses himself greatly in favour of the CASPAR'S hollow sounds which he smeared with a 1—2 0/0 sulphur Lanolin ointment and introduced into the urethra at first three times and later twice a week. If the disease was

anterior to the prostate the sound was introduced only a few cm. beyond it, but in cases of gonorrhoea posterior it was led back into the bladder. The UNNA ointment sounds were rejected by the author after a few trials.

59.

On the preparation of Hebra Ointment. By Dr. GOLDMANN.
(*Therap. Monatsh.*, Jan. 1890.)

The author premises that the HEBRA ointment of the Pharmacopoeia after the lapse of three weeks has a penetrating rancid odour and is changed in colour and consistence. He then gives formulae for the preparation of a „Hebrasalbe“ from lead oleate, Lanolin and liquid paraffin which according to his experience stretching over a period of 4 months is perfectly constant and by the addition of Lanolin has enhanced curative powers.

Apotheker WILHELM also communicates his experience of the HEBRA ointment which exactly coincides with the statements of GOLDMANN.

60.

On caoutchouc plaster. By Dr. SCHNEEGANS and M. CORNEILLE. (*Journ. d. Pharm. d'Alsace Lorraine*, Febr. and March 1890.)

The authors used for their plasters a mixture of Lanolin, Benzoin, Suet, Caoutchouc and Dammar resin in various proportions. The caoutchouc and resin were introduced in as small quantities as possible so that the mass consisted for the most part of Lanolin and fat and could never be irritating.

They give several formulae of which we here reproduce that of the Mercurial caoutchouc plaster:

Res. Dammar	20	parts
Seb. benzoin	34	„
Lanolin	20	„
Caoutchouc	6	„
Hydrarg. viv.	20	„

The mercury is rubbed with the Lanolin until no more globules are visible; separately the resin and fat are melted

together, strained through muslin, then the caoutchouc dissolved in Benzene added and the latter evaporated on the water bath. To the still luke-warm mixture the mercurial Lanolin is added and well mixed. The spreading is deferred until the mass no longer shows air-bubbles and flows evenly.

61.

Plaster mass. By H. HAGER. (*Pharm. Zeit.* No. 14, p. 108, 1890.)

The author prepared a mass from 10 parts of Caoutchouc. 25 parts of anhydrous Lanolin, 50 parts of resin, 10 parts of dammar resin and points out that the addition of Lanolin is of particular value since in its absence the adhesive power of the plaster is reduced to nil by the dampness and perspiration exuding from the skin. When Lanolin is present on the other hand the moisture is taken up by it and the plaster retains its adhesive qualities.

62.

A contribution to the knowledge of Lanolin. By Dr. P. G. UNNA, Hamburg. (*Therap. Monatsh.*, Febr. 1890, No. 2, p. 79.)

The author emphasises the quite unique indifference of Lanolin to decomposing agencies and its important absorbing capacity for water, which guarantee it a permanent place in materia medica and give it decidedly the preference over all other transiently recommended ointment bases.

He then exhaustively treats of the application of Lanolin for the preparation of plasters, an industry which has through it received an important impulse.

Not only has Lanolin greatly simplified the composition of the plaster mass but it has importantly enhanced its adhesiveness which always left something to be desired. But here also the more than ordinary chemical indifference of the fat has made great progress possible; medicaments which by reason of their instability could not be applied in the form of plaster can now be worked up into very active and constant preparations. As

instances may be specially mentioned pyrogallol and argenti nitras.

The conspicuous improvement of plaster masses during the last few years is according to the author a consequence of the introduction of Lanolin.

63.

On Lanolin and the detection of Cholesterin fat in man.

By O. LIEBREICH. (*Verhandl. d. physiol. Gesellsch. No. 7.* 1890.)

By LIEBREICH'S investigations the theory has been originated that cholesterin fats are contained on the surface of animals and plants in an manner as protective agents. This assumption is based upon the known cholesterin reaction first given by LIEBERMANN.

By the aid of this reaction UNNA and SANTI on the other hand did not detect Lanolin in the human skin but suggest that it is concerned with a mixture of cholesterin with glycerine fats since this mixture must give the same reaction without cholesterin.

The problem has now advanced a step further through the latest communications made by LIEBREICH and indicated above. He drew attention to a method which made it possible to separate cholesterin from cholesterin fats — a method which chemists never hoped to be able to come at. It depends upon the property of ethylacetic ether of dissolving cholesterin more than cholesterin fats, and by its means LIEBREICH was able to show that vernix caseosa (a substance as little liable to decomposition as Lanolin) is a mixture of a little glycerine fat with much cholesterin fat. Therefore as a matter of fact, vernix caseosa is a kind of natural human Lanolin, produced in excess, as sometimes occurs with the protective fats of the animal and vegetable kingdoms.

64.

On the occurrence of Lanolin in the human skin. By

O. LIEBREICH. (*Therapeut. Monatshefte*, July 1890.)

In this paper LIEBREICH communicates further details respecting the preparation of human lanolin from Vernix caseosa.

The colourless mass extracted by chloroform has a resinous fatty character and after repeated treatment with ethyl aceto-acetic ether in adequate quantities, the residue is free from any uncombined cholesterin. From the decisive nature of the cholesterol reaction yielded by this residue it is evidently a cholesterin ether, that is to say, human lanolin, and possesses moreover similar aseptic properties to the lanolin of sheeps wool, which were first recognised by Gottstein. But since Vernix caseosa consists of a secretion of the sebaceous glands mixed with particles of degraded epidermis, these results prove that lanolin does occur naturally in the human skin. A specimen of human lanolin so obtained was exhibited by Prof. LIEBREICH at the International Medical Congress of 1890 in the collection of the Imperial Board of Health.

65.

Upon some methods of application of Lanolin. By Dr. PASCHKIS in Vienna. (*Wiener med. Wochenschrift* No. 28 and 29, 1890.)

The author, who has already considered the subject of the employment of lanolin in his „Cosmetics“, recapitulates the well-known properties of lanolin, its hygroscopic character, freedom from rancidity, and adaptability for embrocation, and describes the methods by which it can be made less tenacious. He himself recommends a mixture of a jelly made from a neutral soap (25 per cent of soap ad. 75 per cent of water) with an equal quantity of hydrous lanolin, which forms a beautiful ointment basis. Medicaments like boric acid (3 per cent) borax (10 per cent) and salicylic acid (0,5—1 per cent) can be readily incorporated in this basis and yield good cold-creams for the face and hands.

Paschkis further mentions other useful preparations:

1. Crème

Lanolin puriss.	65 parts
Paraffin. liquid.	30 „
Ceresin	5 „

2. Helbings Ointment

Lanolin anhydricum	65 parts
Paraffin. liquid.	30 „
Ceresin	5 „

30 parts of water are kneaded into the whole mass.

The crème contains 22 per cent water, Helbings ointment 23 per cent.

Another lanolin preparation in frequent request and well suited for cosmetic purposes in the Milk which to some extent corresponds to preparations of fatty emulsions. A lanolin-milk combines the superior properties of lanolin with those of a fat-emulsion. It may be prepared by triturating one part of the lanolin for emulsification with two parts of Spiritus sapon Kal., and continually adding the necessary water in small quantities during the operation. This emulsion is beautiful, durable and persistent, but affected by the introduction of other substances. Paschkis therefore recommends the following prescription:

Lanolini	90 grns	tere cum
Aq. destillat.	3 drms	
leni calore calefactis adde terendo		
Sapon centrif. neut.	5 grns	
in Aq. destill.	3 drms	solut
dein sensim adde		
Aq. tep. ad.	4 ozs.	Cola

Borax or other materials soluble in water can be added to this emulsion at wish, and the preparation will possess a high degree of excellence.

For the preparation of pomades Paschkis also recommends lanolin, and again in the manufacture of powders he substitutes lanolin for cacao-butter or spermaceti and so obtains a very soft saponaceous powder that adheres well to the skin.

New mode of treatment of urethral and vesical affections.

By TAYLOR. (*The Medical World*, July 1886.)

The author recommends the so-called „sub-preputial treatment“ that is to say, the application of readily-absorbed medicaments to both sides of the frænum under the preputium. By introduction of lanolin in which morphine or cocaine, or both, or even atropine, is incorporated. TAYLOR observed a marked diminution of the symptoms in cystitis, irritable bladder, priapism and gonorrhoea. In the latter disease the discharge soon disappears or is at least considerably diminished.

He repeats the application several times a day according

to requirement and expressly mentions that upon every occasion the lanolin together with the incorporated specific is wholly absorbed.

67.

Lanolin as a vehicle for acid and saline liquids. By
P. G. UNNA. (*Therapeut. Monatshefte*, August 1890.)

UNNA recounts the difficulties experienced with ointments containing sulphurous acid, hydrogen peroxide and calcium chloride before the introduction of lanolin.

Sulphurous acid, which has until now been useless on account of its destructive desiccating action upon the skin, becomes an useful therapeutical agent when triturated with lanolin. This mixture evolves no gases and only after moistening and rubbing down with water an evolution of sulphurous anhydride occurs. This depends upon the extraordinary affinity of lanolin, in contradistinction to other fats, for a soluble gas. As a deoxidising ointment of strongly acid character UNNA recommends:

Sol. calcii bisulfurosi	1 oz
Ung. simplicis	4 drms
Lanolini	2 drms

M. f. ung.

With respect to the hydrogen peroxide problem, the employment of strongly hydrous lanolin has also here afforded a solution of the technical difficulty. Since its introduction the removal of comedones and acne has been an easy task. The simplest formula for such an oxidising and clarifying ointment is:

Sol. hydrogenii peroxydati	1—2 ozs
Vaselini	1 oz
Lanolini	4 drms.

M. f. ung.

Finally the introduction of lanolin has rendered a more penetrating and less superficial action of chloride of calcium on the skin possible. Since lanolin introduces the saline constituents of the ointment into the lymphatic system of the epithelium, absorption of water is attained at different depths in the dermal tissue according to the position of the intruded salts.

Oedema of the epithelium of papillary bodies, hyperæmia, inflammatory swelling of the skin and of subcutaneous glands, are the results of the deep-seated action of chloride of calcium, and its use is therefore indicated in old pruriginous and keratoid eczema, in ichthyosis, scleroderma and solid infiltrates. The formula for the ointment reads

Lanolini	2 drms
Sol. calcii chlorati	1 oz
Ung. simpl.	4 drms.

UNNA concludes his communication with the remark that the physical properties of lanolin alone will secure for it a lasting position amongst our medicinal treasures. Lanolin is as necessary to the practitioner as it is to the experimental investigator.

68.

On the influence of medicinal agents upon cultures of Favus and Trichophyton. By Dr. SCHWENGERS, Düsseldorf. (*Monatshefte für pract. Dermatologie vol. XI. part. 4.*)

In an extensive series of experiments Dr. SCHWENGERS has investigated the behaviour of the Favus fungus and of Trichophyton (*Herpes tonsurans*) towards medicinal agents in ordinary use, from which the following interesting statements concerning lanolin are culled.

Lanolin inoculated with Favus gave no positive result and after 17 days no definite growth was observed. Even after a further period of 21 days no change was apparent, although best cultures showed a true Favus mycelium to be present. Upon vaselin development of this fungus was evident.

With respect to inoculation of lanolin with Trichophyton, the result was negative after 17 days, but 21 days later a fungoid growth appeared upon the lanolin, although considerably less prominent than upon inoculated oils.

69.

On new medicinal soaps. By Dr. EICHHOFF, Senior Physician in the Town, Infirmary at Elberfeld. (*Volkmanns Sammlung* 1890, No. 4.)

In a lengthy article the author develops his argument for considering the introduction of an indicated specific into the

system in the form of a soap to be correct. A soap excels an ointment in activity, because the relation of soap to the human skin and its organs is much nearer and more natural than any other fat or even an external plastic basis for the medicament.

He has also altered the method of introducing excess of fat into soaps, since whereas he formerly used olive oil, he now employs lanolin and olive oil. Olive oil is a vegetable fat and as such has not that natural affinity for the human skin which is ascribed by him to every animal fat. Tallow makes the soaps too hard, so he therefore selected lanolin and arrived at satisfactory results. Lanolin is a soft animal fat, that does not become rancid, is readily absorbed by the skin and mixes easily and readily with water.

In order however, not to interfere with the lathering of the soap, EICHHOFF took lanolin mixed with olive oil in the proportions of 2:3, and thus combined the pleasant character of the vegetable fat with the utility of the animal fat.

EICHHOFF then proceeds to show the advantages of lanolin as a vehicle for menthol.

It is well known that menthol has, besides its other good properties, a local anæsthetic action not only upon the mucous membranes but also upon the epidermis. This action is increased and maintained by lanolin. The quantity of water necessary for the production of a lather with the soap mixes with the lanolin. If such a saponaceous lanolin lather be rubbed into the skin and allowed to dry on, the water retained by the lanolin is evaporated gradually and thus also helps to produce a slight artificial cooling and anæsthesia of the skin.

70.

On experiments with some medicinal remedies not yet in vogue. By Dr. BERLINER, Homburg. (*Monatshefte für pract. Dermatologie* vol. XI. No. 8.)

BERLINER uses both the following ointments:

- | | |
|-------------------------------|--------|
| 1. Solutio calcii bisulfurosi | 1 oz |
| Adeps | 4 drms |
| Lanolin | 2 " |
| 2. Solutio calcii bisulfurosi | 4 " |
| Lanolin | |
| Vaselin aa | 1 oz |

In Pityriasis versicolor the ointment acts more promptly and better than all other articles yet employed, and may almost be regarded as a specific. Without any further addition the preparation is most thorough in its action. In all cases in which a previous chrysarobin-pyrogallol treatment has induced an inflammation of the skin, it acts as a mild, soothing agent without any subsequent injurious action.

71.

On the application of lanolin. By Dr. H. PASCHKIS. (*Centralblatt für die gesammte Therapie, Vienna 1890, vol. X.*)

From extensive experimental investigations Paschkis arrives at the following results:

The fundamental properties of lanolin (absorption of water, non-rancidity, easy absorptability) are fully appreciated in all the modes of application.

The ointments which serve for more remote medical action, both anhydrous and hydrous (about 23 per cent) lanolin can be employed without any other admixture.

Mixtures of lanolin with soaps or fats yield useful ointment bases, but amongst these those containing animal fats, and especially paraffins and ceresin, are to be preferred on account of their complete indifference.

The useful mixture commonly termed Unguentum Lanolini consisting of

Lanolin	2 ozs
Paraff. liquid	1 „
Ceresin	1½ drms

possesses all the properties of lanolin, and can be employed without any further and more complicated directions for the preparation of ointments, for which it has a suitable consistence. It also has the advantage not possessed by any other fat or fat mixtures, of not undergoing decomposition.

72.

Lanolin as a vehicle for Vaccine Lymph. By M. G. KING, Surgeon Major. (*Brit. Med. Journ.*, 28. March 1890.)

In order to obtain a preparation of animal lymph which should withstand the destructive and decomposing action of the

heat in India, King has made a number of experimental mixtures with glycerine, boroglycerine, vaselin and lanolin. Glycerine preparations were useless after 7 days, with Boroglycerine the lymph retained its efficacy for 15 days, but many preparations were destroyed sooner, so that their employment was very unsafe. When King mixed the contents of the pustule with glycerine, the preparation was useless after 10—12 days, whilst mixtures consisting of 1 part of pustular contents with 4 parts of lanolin were always preserved for at least 40 days. On this account King recommends three pastes of different strengths, but believes that even the weakest paste will give full satisfaction.

1. Pus 1 part
Lanolin 4 parts, preserved above 40 days
2. Pus 1 part
Lanolin 6 parts, preserved above 21 days
3. Pus 1 part
Lanolin 10 parts, preserved above 15 days.

73.

Mercurial Lanolin in Pterygium. By Dr. DARIER. (*Wiener med. Presse* of 30th. June 1890.)

The case reported by Dr. DARIER was that of a man, who had suffered from Pterygium for 20 years. The disease had affected the cornea on both sides to such an extent that the sight was considerably interfered with. The patient had already undergone three operations. On examination the external and internal sides of the cornea showed a reddish fleshy triangular mass, the apex of which pressed against the centre of the cornea, but did not have the usual appearance of a Pterygium. The limbus showed a colloid semi-transparent infiltration, which was filled with small vacuoles as in a spring catarrh. By means of massage with mercurial lanolin, the cornea was cleared and within 3 weeks the patient was cured.

This is the second case successfully treated by DARIER in some way.

Therapeutical notices from the Hospital for skin Diseases.

By Dr. OSCAR LASSAR. (*Dr. Paul Borner's Medical-Kalender.*)

LASSAR gives amongst other ointments a large number of recipes for lanolin preparations, and remarks that lanolin and vaselin have driven nearly all other ointment bases into the background.

Persistent inflammation of the scalp often yields with astonishing quickness to the abundant application of lanolin

Hydrargyri sulfurati rubri	15 grns
Sulfur. sublimati	6 drms
Lanolin Liebreich	
Vaselin	aa 1 oz
Ol. Bergamott	25 drops

M. f. ungt. S. Cinnabar ointment.

In dermatitis, erysipelas, burns and pemphigus the zinc lanolin (Kaposi) so frequently employed in the Vienna surgery is recommended.

Zinc. oxid	2 drms
Lanolin Liebreich	1 oz.

M. f. ungt.

Against cracking of the skin the following preparation can be used with advantage:

Lanolin Liebreich	2 ozs
Vaselin flavi	4 drms
Tinct. benz.	1 drm

M. f. ungt.

In cases of eczema, prurigo and all itches a mixture of chrysarobin and lanolin with 10—25 parts of the former to 100 parts of the latter, should be well rubbed in. In herpegetic eczema of the face the following ointment will be found very useful:

Ol. Rusci	
Sulf. praecip.	aa 2 drms
Vaselin	
Lanolin	aa 6 drms

M. f. ungt.

In psoriasis, besides baths, LASSAR recommends that the places shall be rubbed gently with:

Chrysarobini	25 parts
Lanolin	75 „
M. f. ungt.	
or Acid pyrogall.	10 parts
Lanolin	90 „

The application should be made with stiff camels-hair brushes and talc strips employed for protection. For face and hands the following frequently suffices

Hydr. praecip. alb.	
Acid pyrogall.	aa 1 drm
Lanolin ad	1 oz.

Pruritus can be successfully treated with the ointment:

Menthol	1 drm
Bals. Peruv	2 drms
Ungt. Wilsonii	
Lanolini	aa 1 oz

but must be used cautiously on the face.

For prurigo, salicylic lanolin, as well as HEBRA ointment is recommended.

75.

What is the simplest and best treatment of the so called varicose ulcers of the leg? By Dr. J. BRAUN. (*Allgemeine Wiener med. Zeitung* of 3. February 1891.)

After a detailed discussion of the various therapeutical methods in vogue for treatment of ulcers of the leg BRAUN accords the highest praise to a 10 per cent Zinc. lanolin ointment. The ointment consists of

Zinc oxid	45 grms
Lanolin	6 drms
Ung emoll.	2 drms

It should be spread to the thickness of about $\frac{1}{20}$ th of an inch upon soft linen and then applied to the surface of the ulcer, which quickly heals. In this treatment the author has never seen any decomposition of the ulcerous secretion, which he ascribes to the aseptic influence of lanolin.

In the case of impure and discoloured ulcers the ointment must be replaced by fresh portions four or five times during the first day, but as soon as the wound commences to heal, three changes of the ointment during the day will suffice.

After the wound has healed the author orders for prophylactic reasons that his patients shall wear a MARTIN'S bandage for some time. He most warmly recommends his therapeutical method to colleagues as being followed by certain success.

76.

The Pathology and Therapeutics of diseases of the eye-lids.

By Dr. L. WOLFFBERG, Director of the former Jany's Eye Surgery in Breslau. (*Centralblatt für die gesammte Therapie*, March 1891, and *klin. Monatsbl. f. Augenheilkunde* 1890.)

In his pamphlet upon diseases of the eye-lid WOLFFBERG recommends a 10 per cent. liquid neutral borax soap (Gude) for application in squamous cases of inflammation of the eye-lids, which are accompanied by eczema and rhagadia. In elegant practice the simpler preparation may be replaced by either of the following lanolin borax emulsions:

1. Lanolin 90 grms
 tere cum
 Aq. destill. 3 drms
 leni calore calefactis
 Sapon centrifg. neut. 5 grms
 sol. in
 Aq. destill. 3 drms
 Boracis 18 grms
 in aq. destill. qu. s. soluti
 deinde sensim adde
 Aq. destill. qu. s. add. 4 ozs
 S. lac. lanolin cola soponatum
2. Lanolin
 Gumm. arab. aa 90 grms
 Acid. boric. 18 „
 Aq. destill. 4 ozs
 Extr. viol. 9 drops
 M. exacts. f. emuls.
 S. lac. lanolin gum.

BOTH preparations have the appearance of milk and have an excellent effect in all squamous diseases and lighter cases of eczema of the eyelids, even with most irritable skins. They

do not cause any burning sensation and are used as washes for the eyelid edges.

WOLFFBERG still more extensively employs the ointment introduced by UNNA:

Sol. hydrogenii peroxyd.	2 ozs
Vaselin	
Lanolin	1 oz
M. f Ung.	

By treatment with his ointment scales and scabs are quickly dissolved and a healthy healing surface soon appears.

77.

Additions to our knowledge of Erysipelas. By JULIUS WENDEROTH. (*Dissertation, Göttingen, 1888.*)

WENDEROTH reports upon the treatment of erysipelas by application of a sublimate lanolin ointment a method adopted in the Göttingen private surgery since 1886, and comments upon the success attending the treatment. The portions of the skin affected by erysipelas, as well as the surrounding parts, were usually smeared thickly twice a day with 0.1 per cent sublimate-lanolin ointment and a wadding bandage laid over it. All internal remedies beyond the administration of wine are discarded. WENDEROTH reports concerning ten cases treated in this manner, in all of which with the exception of two the erysipelas was confined to the already affected parts and was only of short duration.

78.

On the Therapeutics of Erysipelas. By Dr. A. GOTTSTEIN. (*Therapeut. Monatshefte, April 1891.*)

GOTTSTEIN takes the opportunity afforded by a brilliant and rapid recovery from erysipelas to recommend the method of treatment adopted and continued in the Göttingen surgery. The infected patches of skin were smeared twice daily with a thick layer of 0.1 per cent sublimate lanolin ointment and covered with wadding. In this case also all other internal remedies than wine were discontinued.

On the Action of Lanolin ointments. By Dr. ALEX von JLJINSKI of Moscow,

The author draws the attention to three methods of applying lanolin, which possess special advantages.

1. In nervous and rheumatic affections he recommends lanolin ointments containing narcotic and nerve tonic constituents (Acid arsenicos. Atropin sulfuric.) and states that this treatment has been followed with the greatest success in all cases in which the pain arises from local nervous disorders.

2. In chronic scaly eczema he advises that the skin should be first rubbed with Liq. saponat. kal. and then sprinkled with boric acid in order to remove the scabs. After this the following ointment should be applied:

Mercur. praecip. alb	50 grns
Lanolin puriss.	1 oz
Vaselin	1 drm

and the places covered with absorbent wadding and bandages. Excellent results are always obtained.

3. In cases of old chronic urethritis the author follows the method of Drs. CASPER and FINGER of employing probes smeared with Arg. nitr. lanolin ointment. He cites several cases, with had hitherto resisted all treatments in which complete recovery was effected after a short time.

The action of Light upon ointments and the greater stability of Lanolin ointments. By GEORGE ROE. (*Pharm. Journ.*, 6. Febr. 1892.)

ROE expresses his opinion in this paper as to the action of light upon ointments with especial regard to their comparative stability. He states that ointments containing salts of mercury and iodine compounds are much more stable towards light if lanolin be employed as a basis for the ointment in preference to lard or vaselin. He further demonstrates the value of lanolin as an ointment basis in retarding decomposition.

Lanolin as a specific against Itching. By Dr. RICH. KLEIN.
(*Therap. Monatshefte*, January 1892.)

In order to relieve the itching in measles, scarlet fever and chicken-pox the author employs a lanolin ointment containing a large amount of water and of the following composition with considerable success.

Lanolin puriss. Liebr. anhydr.	1 oz
Vaselin americ.	3 drms
Aq. destill.	5 "

Misce terendo fiat unguentum.

The ointment should be applied three times a day, and owing to the large percentage of water it contains, a gradual evaporation of the occluded water occurs after application, and causes a pleasant cooling sensation on the surface of the skin. The author declares that the ointment is absolutely free from irritating properties and readily absorbed.

The preservation of the hands after using irritating substances like carbolic acid, sublimate, etc. By A. SCHNEIDER.
(*Medicin. Chirurg. Centralblatt*, 4. Dec 1891.)

The hands should be first laved with spirit, then washed with soap and water and finally lanolin applied whilst the hands are still moist. In the event of inflammation arising from sublimate the hands should first be bathed with a solution of salt containing 1 oz of salt in 2½ pints of water, then washed with soap and lanolin applied as in the previous case.

On the fatty constituents of the skin. By Dr. von SEILHORST. (*Monatshefte für pract. Dermatologie vol. XIII. No. 7.*)

The investigations of the author on the composition of the fat of the skin have led him to the conclusion that lanolin is the principal fat and that it is to a great extent produced in

the epidermis. Further since on places where much keratohyalin occurs little fat is found and with little keratohyalin more fat occurs, SELHORST regards the formation of fat as a product of the activity of the cell protoplasm, whilst the keratohyalin is a product of the decomposition of the nucleus. There is a certain connection between the formation of keratohyalin and fat, in that the one process is antagonistic to the other.

The author concludes that in ichthyosis accompanied by a strong formation of horn, but easily relieved by the application of lanolin, that besides the strong tendency to formation of keratohyalin there must be a complete absence of fat secretion.

84.

Thilandin, a sulphur derivative of Lanolin. By Dr. EDM. SAALFELD. (*Therapeut. Monatshefte*, November 1891.)

The author has effected a complete recovery in three cases of acute eczema of the face by three days treatment with thilandin, and also obtained similar satisfactory results in eczema of the fingers. He also records successful issues in subacute dry eczema of the face, in five cases of chronic eczema of the leg and hands, in two cases of chronic eczema rhagadiforma scroti et penis, after treatment of short duration.

The preparation is also of great service in eczema of children with exception of scabby eczema of the head.

In Herpes zoster the itching is considerably diminished and the scaly incrustations arising from desiccation of the secretions are speedily removed.

Finally a favourable influence was also observed in Sycosis vulgaris. The author praises the freedom from irritating properties and the quicker action of thilandin as compared with all other preparations employed in dermatology.

85.

Ointments and Pastes. By Prof. Dr. ERNST WENDE. *Buffalo Medical and Surgical Journal*, January 1892.)

The author first indicates the properties that should be possessed by an ointment and regards the following as most important:— Good consistency, homogeneity, durability, adaptability to incorporation of various drugs, absorption by the

skin, absence of irritating properties and a melting-point above the temperature of the body. These requirements are all satisfied by ointments prepared with lanolin.

He further compares the properties of different pastes with each other and considers that these preparations should avoid external irritation of any kind, afford complete protection from the air, retard desiccation and oxidation, and not interfere with the reabsorption of excretions and secretions of the diseased parts.

He recommends the following pastes as conforming with the above conditions:—

Acid. salicyl. 20 grns

Zinc. oxid.

Amyli

Vaselin

Lanolin anhydr. \widehat{aa} 1 oz

Resorcini 20 grns—2 drms

Zinc. oxid.

Amyli

Vaselin

Lanolin anhydr. \widehat{aa} 1 oz

Acid. camphor.

Bismuth. subnitr.

Zinc. carbonat.

Amyli

Vaselin

Lanolin anhydr. \widehat{aa} $\frac{1}{2}$ oz.

Progress in the manufacture of the Plaster used in skin diseases. By M. H. HALLOPEAU physician in the Hospital Saint Louis. (Les nouveaux Remèdes 1892 No. 4.)

After some preliminary critical and historical remarks the author emphasises the importance of Lanoline for the preparation of the plasters. If a quantity of gutta percha dissolved in benzene be added to Lanolin an admirable plaster basis is obtained; the anhydrous Lanolin is most suitable. Of the great number of plasters prepared with Lanolin the following may be specially mentioned:

Emplastrum diachylon, Zinc oxide plaster (Vidal), soap salicylic plaster. The latter has proved very useful against sub-acute eczema with hyperkeratosis and against all hyperkeratotic processes; it rapidly brings about a thorough softening of the horny tissue. It is equally serviceable against dry circumscribed eczema, furuncle, ecthyma and impetigo. Other noteworthy forms are cod-liver oil plaster against prurigo and lichen simplex.

Then there is Chaulmoogra plaster against lepra, creasote and pyrogallic acid plaster against lupus. Of mercurial plasters the calomel-lanolin plaster is specially preferable in syphilitic affections and skin diseases where an extension of the morbid processes by autoinoculation is to be feared.

87.

Pruritus. By Dr. J. WAUGH. (*Times and Register*, 5 March 1892.)

The author describes at length the various causes of Pruritus before he cites his own therapeutical experience. In the latter gum benzoin proved specially suitable either in the form of tincture or as ointment; for the ointment he gives the following prescription:

Rp. Benzoini, pulv. finiss	20 grns
Hydrargyri ammoniat	30 grns
Lanolin	1 oz

M.

On this formula follows a citation of all the different modes of treatment among which the use of the following ointment recommended by Whitla especially figures:—

Rp. Creasoti (Beechwood)	1 drm
Lanolini	2 ozs

ft. Ungt.

Handbook of Pharmacology with special reference to the latest Pharmacopœias: for medical men and students.

Dr. TH. HUSEMANN, Professor of Medicine at the Göttingen University. 3rd Edition, Berlin.

The choice of substances to be used as ointment bases is based not merely upon considerations of temperature but also upon numerous other factors. Glycerine and paraffin ointments, when rubbed into the integument, penetrate to a less extent than fatty ointments and are in this respect still more inferior to Lanolin ointments. The stability of fatty ointments suffers considerably if aqueous liquids be added; paraffin ointments do not admit of the addition of water and hence for ointments with aqueous constituents Lanolin bases are essential. On cooling ointments HUSEMANN writes as follows: Cooling ointments are most suitably prepared from:

Anhydrous Lanolin	1 part
Benzoated Lard	2 parts
Water	3 „

and the so called „cream“ from the same constituents in the proportions of 1:2:6. Further Lanolin ointments allow of the incorporation of a number of substances which decompose fatty ointments.

Over other ointment bases Lanolin possesses marked advantages, especially that it is perfectly free from germs, and that it is capable of taking up large quantities of water and of aqueous solutions of salts without decomposition. For this reason it renders possible the use of a large number of substances in ointment-form such as aluminium acetate, calcium chloride, hydrogen peroxide, sulphurous acid, which otherwise could not be so applied. Further it adheres to the mucous membrane, is superior to fats in that it does not become rancid and thereby irritate the skin and to paraffin and glycerine ointments because it rapidly penetrates the skin and thus particularly in diseased conditions of the integument, brings the medicaments contained in it, into intimate contact with the deeper layers.

Lanolin is especially useful as a basis for cosmetic preparations by the application of which the skin and the hair become more elastic. Ointments prepared with

Lanolin can be very readily removed from the skin by wiping with a cloth.

As examples of Lanolin ointments HUSEMANN gives the following formulæ:—

Rp. Lanolini anhydrici 2 drms
 Adipis benzoat $\frac{1}{2}$ oz
 Aquae Rosarum 6 drms

M. f. Ungt. D. S. For external use.

Rp. Zinci oxidi 1 drm
 Lanolini anhydr. 9 drms

M. f. Ungt. D. S. A piece as large as a pea to be rubbed into the eye-lid three or four times a day. (In Ophthalmia scrophulosa.)

Rp. Lanolini $1\frac{1}{2}$ drm
 Adipis benzoat 3 drms
 Liq Plumbi subacet. 9 drm

M. f. Cremor D. S. external use.

Rp. Potassii iodidi 1 drm
 Aquae $\frac{1}{2}$ drm
 Adipis suilli 1 drm
 Lanolini $7\frac{1}{2}$ drm

M. f. Ungt. D. S. a piece the size of a bean to be rubbed in.

Rp. Cerae flavæ
 Lanolini anhydrici aa 5 ozs
 Olei olivarum $1\frac{1}{2}$ ozs
 Acidi salicylici 3 drms

M. f. pasta. — For squamous and vesiculous eruptions.



III.

CONCLUDING OBSERVATIONS.

Nothing could be more suitable to the formation of an authoritative judgment as to the value of Lanolin than a review of the foregoing extracts which have appeared on the preparation. In scarcely five years the literature has so grown as to include no less than nearly ninety publications apart from those in which the authors have incidentally recommended Lanolin (see section VI) and, as the reader will have convinced himself from the preceding pages, the consensus of opinion is by no means unfavourable to the subject of the extracts.

The authors who have studied and investigated the nature and properties of Lanolin are not alone of German origin; voices equally in praise of it are heard in England, from France, Italy, Sweden and Russia. Not only do we find confirmed, the statements of the general characteristic properties of Lanolin made by its discoverer, but scientific research has, as is always the case, revealed quite new features that the first worker can not at all have imagined and which prove the substance to be a valuable enrichment of our materia medica.

Therefore too much need not be said in order to make it clear that as an ointment base, nay as a remedial agent itself, Lanolin has made itself a reputation in the whole civilised world. Its applications increase from year to year and this in spite of many obstacles in the way of its progress.

Such an obstacle was first found in the stickiness of the preparation, one of its most characteristic and inherent qualities which naturally alters with the temperature. At first (Lanolin was brought out in winter) it was considered desirable to make an addition of some kind of soft smooth fat but as in the

following summer this proved to be superfluous the advice was again discontinued.

Now that these experimental stages are successfully passed it can be once for all explained that Lanolin really is a more or less sticky substance and that, as has always been pointed out, an addition must be made to it in order to give it smoothness and diminish its tenacity. This addition may be either liquid paraffin or vaselin.

In England an ointment has been for some time in use that has proved itself excellent in every respect. The formula is (HELBING: *Chem. and Drugg.* Apr. 27. 1889 and *Pharm. Journal* Dec. 21. 1889):—

Unguentum Lanolini.

Lanolin. purissim. anhydr.	65 parts
Paraffin. liquid.	30 "
Ceresin	5 "

Melt together and then beat or knead in

Water	30 "
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It is desirable that this ointment should be generally adopted as the pharmacist has in it a preparation that can be readily and rapidly mixed with any selected medicament.

In some cases this combination may be substituted by an addition to Lanolin of 30—40 per cent of vaselin.

Neither in the first nor in the second formula do the properties of the Lanolin suffer deterioration; the action of the combinations is in every way therapeutically identical with that of pure Lanolin.



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